


# Assessment of mortality

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 An abbreviated version of this protocol was published in eLIFE in Feb 2020

Longitudinal trajectories, correlations and mortality associations of nine biological ages across 20-years follow-up

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## Detailed protocol

Dear Patrick,

Thanks for contacting me.

Mortality information is obtained from the Swedish National Register. It is sensitive personal data according to the General Data Protection Regulation (GDPR). We are required to treat it with extreme care and, unfortunately, cannot share it on the ArrayExpress platform (<https://www.ebi.ac.uk/arrayexpress/experiments/E-MTAB-7309/>) together with DNA methylation data publicly.

However, any kind of cooperation is warmly welcomed. The collaboration request should be sent to Yunzhang Wang ([yunzhang.wang@ki.se](mailto:yunzhang.wang@ki.se)), as well as an analysis plan explaining how to make use of both the DNA methylation information and phenotype data from The Swedish Adoption/Twin Study of Aging.

In the second part of the survival analyses, we treated all BAs as predictors and found three of them remained predictive: Horvath DNAmAge, DNAmGrimAge, and the frailty index. Our interpretation is these three BAs captured most of the independent information provided by all nine BAs.

Statistically, Horvath DNAmAge and DNAmGrimAge showed the lowest correlation among all DNAmAge pairs. This partly explains our finding that these two (Horvath and GrimAge) out of four DNAmAges could remain predictive in the multiple-BA regression model.

Best,  
Xia

**How to cite:** (Readers should cite both the Bio-protocol preprint and the original research article where this protocol was used)

1. Li, X. (2020). Assessment of mortality. Bio-protocol Preprint. [bio-protocol.org/prep235](https://bio-protocol.org/prep235).
2. Li, X., Ploner, A., Wang, Y., Magnusson, P. K., Reynolds, C., Finkel, D., Pedersen, N. L., Jylhävä, J. and Hägg, S. (2020). Longitudinal trajectories, correlations and mortality associations of nine biological ages across 20-years follow-up. eLIFE. DOI: [10.7554/eLife.51507](https://doi.org/10.7554/eLife.51507)

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